



Dear 2016 Citizen's Academy Participants:

It is with great pleasure we are able to host your visit to the Utilities Administrative Services Building.

The City of Bloomington Utilities is a municipally-owned water, wastewater and stormwater utility under the guidance of the seven-member Utilities Service Board, which is appointed by the mayor and city council.

The City of Bloomington Utilities is responsible for the production and distribution of high quality drinking water, the collection and treatment of wastewater, and the operation and maintenance of the City's stormwater system.

Should you wish to learn more about other Utilities Department facilities, please contact us at 812-349-3650 or visit our website at <http://bloomington.in.gov/utilities>.

Thank you for your interest in our department and your participation in the Citizen's Academy.

Sincerely,

A handwritten signature in blue ink, appearing to read "Vic Kelson", is placed below the word "Sincerely,".

Vic Kelson  
Director, City of Bloomington Utilities

# THE CITY OF BLOOMINGTON UTILITIES AT A GLANCE



- CBU supplies water to Monroe County and portions of Brown County with the help of nine rural water corporations. CBU serves approximately 25,000 connections through 420 miles of water distribution piping, seven water storage tanks and seven booster stations.
- CBU provides wastewater collection service to approximately 24,000 connections through 321 miles of pipe and 46 lift stations. Treatment occurs at the Blucher Poole and Dillman Road Wastewater Treatment Plants.
- CBU is the Stormwater Utility for the City of Bloomington. The jurisdiction is set to the municipal boundary. The Stormwater inventory is comprised of approximately 17 miles of ditches, four miles of box culverts, and 84 miles of piping infrastructure.
- CBU is governed by the seven-member Utilities Service Board which establishes policy. Major decisions are also reviewed by the Common Council of the City of Bloomington.



# **THE CITY OF BLOOMINGTON UTILITIES**

## ***Utilities Service Board***

The Utilities Service Board has oversight of City of Bloomington Utilities policies and activities. Four members are appointed by the mayor, three members are appointed by the Common Council of the City of Bloomington. Two members serve in an ex-officio capacity, representing the interests of the council and the mayor.

## ***Administration***

Administration oversees the daily operation of all CBU departments. The director develops policy with the Utilities Service Board and the mayor and is directly responsible for implementing that policy.

## ***Accounting***

Accounting has five primary responsibilities including income tracking, operation and maintenance, accounting, debt management, and capital financing. Accounting is responsible for the processing of all daily financial transactions of the Water, Wastewater and Stormwater Utilities. This includes the daily deposits and reconciliation of revenues, the processing, paying and reporting of CBU payroll, and the processing and paying for CBU expenditures.

## ***Purchasing***

Purchasing and Materials Management provides all CBU departments with overall procurement services. This includes purchasing, inventory and facilities management, warehousing, records retention, mobile devices, fleet inventory, courier services, master key management, surplus, and equipment accountability. Purchasing strives to purchase the best quality of goods and services at the lowest price to meet CBU goals.

## ***Customer Relations***

Customer Relations seeks to provide the best possible service to CBU customers. This includes assisting customers with starting and stopping water and wastewater service, making sure that paperwork is completed correctly, assisting customers on the phone and in person with billing questions or concerns, selling septage tickets to waste haulers for dumping at Dillman Road Wastewater Treatment Plant, assisting customers with paperwork for new service, and working internally with Engineering and Transmission and Distribution regarding new services.

## ***Billings and Collections***

Billings and Collections is responsible for processing and managing all collections (collection of outstanding debt) due to CBU. This includes establishing customer payment plans, billing, address changes, and online payments. Duties also include processing adjustments, lien letters and non-sufficient fund items. These tasks are completed through data entry and the maintenance of electronic and paper files.

## ***Engineering***

Engineering is responsible for engineering oversight for design construction and maintenance of all water, wastewater, and storm sewer pipelines that are owned, or will be owned, by CBU. Other functions include maintaining informational data bases and computer mapping of all CBU pipelines, calculating appropriate service pipe sizes to be installed, issuing permission for service connections to CBU wastewater and water mains, keeping records on and securing needed easement rights and property ownership for all CBU projects. Duties also include providing long-range planning vision and involvement in the budget process to ensure infrastructure improvements can be made, and providing information to the general public, engineers, architects, designers, other City departments and governmental agencies.

### ***Blucher Poole Wastewater Treatment Plant***

The Blucher Poole Wastewater Treatment Plant is responsible for treating wastewater generated in the northern part of the Bloomington collection system. It has a design treatment capacity of six million gallons per day. Employees strive to maintain levels of discharges lower than those required by the State of Indiana and produce a safe byproduct of operations for disposal (sludge).

### ***Dillman Road Wastewater Treatment Plant***

Dillman Road is Bloomington's largest wastewater treatment plant. It has a design treatment capacity of 15 million gallons per day. Like Blucher Poole, the Dillman Road Plant is monitored by the State of Indiana for compliance with their respective National Pollutant Discharge Elimination System (NPDES) permits.

## ***Laboratory***

The Dillman Road Laboratory is a key component of CBU's environmental compliance program. Staff either conducts or arranges testing for all water and wastewater programs. The laboratory director works closely with the Utilities director and deputy director to resolve regulatory and environmental policy issues.

### ***Monroe Water Treatment Plant***

The Monroe Water Treatment Plant has a present treatment capacity of 30 million gallons a day. Monroe Plant employees conduct laboratory analyses, operate and maintain the system to ensure reliable delivery of high quality water. Lake Monroe is the source of drinking water for all of Monroe County and portions of Brown County. Lake Monroe is owned by the U.S. Army Corps of Engineers and managed by the Indiana Department of Natural Resources.

## ***Griffy/Lemon***

**Griffy Reservoir:** CBU assists the Parks and Recreation Department in maintaining the property and conducting large maintenance projects. In addition, CBU uses the property for supplemental storage.  
**Lake Lemon:** CBU provides property management services for the City of Bloomington-owned property and equipment of Lake Lemon, oversees the contract with Lake Lemon Conservancy District, assists the Conservancy with various projects, reports to the Utilities Service Board and the mayor on all matters related to the Conservancy activities.

## ***Transmission & Distribution***

T&D is responsible for maintenance and installation of water and wastewater lines throughout the service area. T&D also installs and reads meters, initiates and terminates water service to customers and troubleshoots customer complaints. T&D manages CBU's communications operators who respond to customer telephone calls. Duties performed by the operators also include scheduling after hours emergency work and responding to calls for services from other City departments (Street, Public Works, Animal Shelter).

## ***Stormwater***

The Stormwater system is comprised of about 17 miles of ditches, four miles of box culverts, 86 miles of piping infrastructure, 1,035 manholes, and 5,695 inlets.

## **City of Bloomington Utilities Transmission and Distribution**

### **Master Motor Equipment Operator**



#### **Duties of the position:**

These individuals operate various pieces of equipment — including a backhoe, dump truck, street saw, blacktop roller, air compressor, sewer cleaning truck, and related attachments in effecting the general maintenance, repair and construction of water, sewer, and storm lines. Their responsibilities entail digging and refilling ditches and patching roads using appropriate equipment. They assist with repairing and replacing pipes, loading and dumping crushed stone, sand, and asphalt from trucks as assigned. They occasionally assist laborers in completing assigned duties. They also sometimes serve as the temporary leader of work crews.

### **Lineman**



#### **Duties of the position:**

These persons supervise assigned work crews on a daily basis according to instructions from the assistant superintendent. They monitor crews to ensure compliance with assigned instructions and safety rules. They help maintain or repair water, sanitary sewer, and storm sewer services using appropriate equipment and tools. They also help install and repair water lines, fire hydrants, roads, sidewalks, and yards. They also assist in the installation of new water services and perform related duties as assigned.

### **Laborer**



#### **Duties of the position:**

These individuals operate various equipment — including a dump truck, street saw, shovels, jack hammer, pipe saw, and related attachments in effecting the general maintenance and repair of water and sewer lines. They haul, dump, and shovel crushed stone, sand, dirt, and asphalt from trucks using appropriate equipment. They dig and refill ditches, repair and/or replace pipes, patch roads, sidewalks, and/or soil. They also clean work sites as needed.



## **City of Bloomington Utilities Transmission and Distribution**

### **Working Conditions**

The majority of duties are performed outside in varying weather and work conditions. These duties can occur during all hours of the day and night.



### **Water Main Breaks**

The City of Bloomington Utilities maintains 420 miles of water distribution infrastructure. When a break occurs in the system, the response is prompt and repairs are completed in a timely fashion. It is CBU policy to accomplish the restoration without shutting off water service to customers or disrupting traffic flow whenever possible.



### **Worker Safety is Always the First Priority**

All work is performed in accordance with established CBU safety standards adapted from AWWA and OSHA recommendations. Safety precautions are used at all times to avoid injury to self and others.



## City of Bloomington Utilities Transmission and Distribution



**Meter Reader/  
Meter Service**



**Duties of the position:** *Meter reader employees* are responsible for reading customer meters in the four zones the service area is divided into. On a normal day, each meter reader will read between 250 and 300 meters. They are often times the first to detect problems in the system, such as leaks. *Meter service employees* are responsible for the upkeep of meters making sure they are functioning correctly. Meter reader and meter service employees can also be the first to notice hazards or safety issues, while also serving as another set of eyes and ears for law enforcement.



**Sewer  
Cleaning  
Operator**



**Duties of the position:** Responsible for the maintenance of the wastewater collection system. Also participates in projects involving the installation, repair or typical maintenance activities associated with the water distribution and stormwater collection systems, and with repairs of the wastewater collection system.



**Sewer  
Inspection**



**Duties of the position:** Responsible for using sewer televising equipment to inspect the 321 miles of sanitary sewer pipe maintained by CBU on a regular basis to assess its condition. The camera measures the exact distance in a pipe, so repairs to cracks, joints, or removing obstructions can be done easily and precisely.



### **Monroe Water Treatment Plant**



The Monroe Water Treatment Plant was built in 1967 and is located at 7470 Shields Ridge Road, near Lake Monroe. The plant is the primary source of drinking water for Monroe County. Nine rural water corporations rely on CBU for water. Work commenced in 2012 to expand the plant's production rate from 24 million gallons per day to its present treatment capacity of 30 million gallons per day. This expansion ensures CBU is able to meet the current and future demand of its customers. The purity of the drinking water produced by the Monroe WTP is rigorously monitored.

### **Blucher Poole Wastewater Treatment Plant**



The Blucher Poole WWTP is located about 5 miles north of Bloomington on Bottom Road at the intersection of Bottom Road and Maple Grove Road. The plant was placed in operation in 1970 to serve the northern part of Bloomington. The Blucher Poole WWTP has a design capacity of 6 million gallons per day, and a peak hydraulic capacity of 12 million gallons per day. The plant uses the complete mix modification of the activated sludge treatment process, and composting of the bio-solids for final stabilization.

Public services at Blucher Poole include accepting yard waste (grass clippings and leaves). Commercial yard waste is not acceptable, nor are tree limbs or branches.

### **Dillman Road Wastewater Treatment Plant**



The Dillman Road Wastewater Treatment Plant is located south of Bloomington at 100 West Dillman Road. It was placed in operation in May of 1982. Solids handling operations began in 1985, and the landfill opened in 1986. The plant has a design capacity of 15 million gallons daily and a peak hydraulic capacity in excess of 30 million gallons daily. It is a two-stage complete mix activated sludge plant with tertiary anthracite filtration. Disinfection and phosphorus removal are also required during the summer and fall months. Plant effluent is discharged to Clear Creek.

Public services at the lab include performing bacteria tests on samples from swimming pools and private well water. Samples can be brought in for testing or empty sample bottles picked up from 7:30 am-3:00 p.m., Monday-Wednesday and 7:30 am-10:00 am on Thursdays.



# **CBU Water Conservation and Energy Resource Management**

## **City of Bloomington Utilities Water Conservation**

- The Water Conservation Plan adopted in 2014 is a demonstration of CBU's commitment to ensure the quantity and quality of our water supply is healthy for generations to come and an expression of the Utility's steadfastness to operate as efficiently as possible.
- The conservation and energy resource manager ensures the Utility is working to achieve the goals of the Water Conservation Plan and is the individual responsible for quantifying the performance of each goal to determine their success.
- Track and record water loss from events such as water main breaks to reduce non-revenue water.
- Track water pumping rates at the MWTP during periods of high and low demand to help reduce pumping cost.
- Provide educational materials and guidance for large users and residential customers.
- Provide more detailed usage data to our customers with the help of our newly designed monthly bill.
- A limited supply of Water Conservation Kits are available to CBU residential customers at no charge to help make conserving water easier.



## **City of Bloomington Utilities Energy Resource Management**

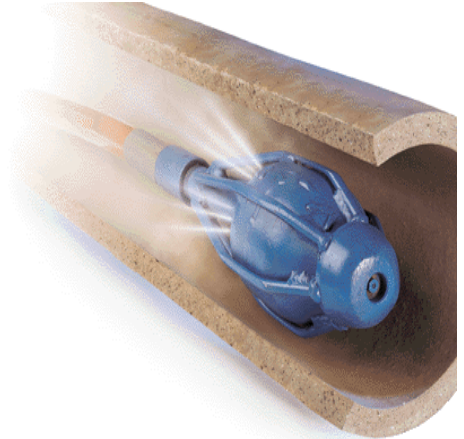
- Ongoing efforts to find methods to optimize operations at each of the three treatment plants. The objective is to (1) increase efficiencies, (2) maintain compliance and (3) reduce chemical costs.
- Commitment to adopt available technologies and renewable energy sources.
- Continue exploration and implementation of energy reduction and demand processes at all CBU facilities.
- 2015-2016 Monroe County Energy Challenge participant.



## City of Bloomington Utilities Fat, Oils and Grease (FOG) Program

While the City of Bloomington Utilities routinely cleans all sections of the sewer system, one of the biggest challenges is cleaning grease from sewer pipes.

- Grease build-up can plug pipes, leading to a possible sewer back-up or overflow.
- Grease build-up can also result in major operational problems in the public sewer system with sewage possibly flowing into creeks and rivers, ultimately ending up in the ocean.



A Jet Rodder is used to clean sanitary sewer pipes.

CBU pretreatment staff conduct inspections at all food establishments to ensure compliance with the FOG program.

CBU requires all food service establishments to keep a cleaning verification log that documents the frequency of grease trap or grease interceptor cleaning events, or submit copies of receipts of pump outs.

Failure to properly maintain grease traps or grease interceptors is a violation of the City of Bloomington Municipal Code Chapter 10.17.100.

The Environmental Protection Agency has stressed the importance of strict grease waste management programs in virtually every contact CBU has had with the agency regarding sanitary sewer overflows.



CBU pretreatment staff conduct inspections at food establishments to ensure compliance with the FOG Program.

Several pretreatment-related amendments were added to the Bloomington Municipal Code in 2012.

- The primary objective was to promote more effective removal of grease before it enters the sewer waste collection system.
- It clarified rules related to practices which were already part of CBU's current policies.
- The amendments also reflected widely accepted "best management practices" for food service establishments to follow.



Pictured above is a grease trap overdue for a cleaning.

## City of Bloomington Utilities Backflow Prevention Program

- Backflow Prevention is a well-known topic across the United States.
- Cross connections and backflow have been identified by utilities and stakeholders as a potentially significant threat to drinking water systems.
- Fortunately, backflow issues haven't been a serious problem locally in the past. However, federal and state laws are getting more stringent regarding backflow prevention.
- Backflow is the result of the undesirable reverse flow of non-potable water or other substances contaminating the drinking or public water system due to a cross connection in the piping.
- Backflow prevention devices are one-way valves installed in plumbing systems to prevent backflow of potentially contaminated water/substance(s) into a potable drinking water supply.
- CBU backflow prevention staff inspect larger users who have the potential to cross-connect water with CBU's treated water system to make sure backflow prevention devices are installed, maintained and tested in buildings where backflow may be a risk.
- CBU backflow prevention staff administer local, state and federal regulation compliance to protect health and safety of the public water supply.
- Should an inspection reveal an existing issue, CBU backflow prevention staff will meet with the company's engineering and management staff to come to an amiable solution.
- CBU backflow prevention staff are also heavily involved in backflow prevention education.
- CBU backflow prevention staff have compiled a spreadsheet indicating where existing backflow protection devices are located in the water distribution system maintained by the Utility.



Pictured above is a properly maintained backflow connection.



Pictured above depicts a leaking backflow connection.

**Receive Emergency**

# **A L E R T S**

**The City of Bloomington Utilities  
has joined the Monroe Alert System**

**You can now receive instant reports of tornado  
and flash flood warnings, along with other notifi-  
cations such as sanitary sewer overflow notices  
and precautionary boil water advisories.**

**BY EMAIL, TEXT, PHONE OR TTY/TDD**

**Sign up at [www.co.monroe.in.us](http://www.co.monroe.in.us)**

**By clicking**



**Citizen Alert**

**Notification System**